FCC Part 15
(Subpart C – Intentional Radiators)
Section 15.247
Test Report

Prepared For:

Socket Communications
34700 Central Court
Newark, CA

Model:
Wendy

Prepared by:

Universal Compliance Laboratories
775B Mabury Road
San Jose, CA 95133
USA

CONTENTS

1 CUSTOMER INFORMATION

Test Laboratory: FCC registration number	Universal Compliance Labs 775B Mabury Road San Jose, CA 95133 USA Tel: 408-453-8744 Fax: 408-453-8747
Customer:	Socket Communications 34700 Central Court Newark, CA Tel: 510-744-2723 Fax: 510-744-2727
Contact Person:	Larry Lovercheck
Receipt of EUT:	8/20/01
Test plan reference:	FCC Part 2, 15 (15.247)
Date of testing:	8/20/01 – 8/21/01
Date of Report:	8/24/01

The tests listed in this report have been done to demonstrate compliance to the CFR 47 Section 15.247.

Contents approved:

Name: Bob Cole Title: President	Name Title

2 EUT AND ACCESSORY INFORMATION

2.1 EUT description

The EUT is a Bluetooth Protocol Analyzer

2.2 EUT and accessories

The table below lists all EUTs and accessories used in the tests. Later in this report, only numbers in the last column are used to refer to the devices in each test.

2.3 Software

The computers were equipped with test software provided by the customer. The software was used to control the EUT in the tests.

	Name	Type	S/N	Number
EUT	"Wendy"	Bluetooth Connectivity Card (Compact Flash Format)	01	02001
Accessories	Laptop Computer	H-P		
Software	Bluetooth Manager	Socket	N/A	N/A

3 SUMMARY OF TEST RESULTS

	Section in CFR 47	Results
15.247,b1	Peak output power (Radiated Emissions)	PASSED
15.247, c	Band-edge compliance of RF Radiated emissions	PASSED
15.247, c	Restricted Band (Radiated Emissions)	PASSED
15.247,c	Spurious radiated emissions	PASSED

PASS The EUT passed that particular test.
FAIL The EUT failed that particular test.

4 STANDARDS AND MEASUREMENT METHODS

The tests were performed in guidance of CFR 47 section 15.247, FCC public notice DA 00-705 (March 30, 2000) and ANSI C63.4 (1992). Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method". For the test equipment, see device list in the end of this test.

4.1 Selection of operation mode for tests

Before tests, several operation modes, and modulation patterns were tried. The worst case was selected for each test and those results reported.

5 TEST SETUPS

To fulfill all requirements for the testing, total of two different test setup were used. One EUT was used, unmodified for radiated tests for this supplemental report.

5.1 Setup A (Radiated measurements, hopping enabled – Inquiry Mode)

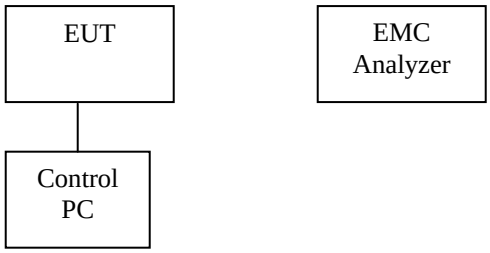
5.1.1 Operational description

This setup was used in radiated measurements with hopping enabled in Inquiry mode. The EUT inserted into the Laptop Computer. The setup was capable of doing following:

- set the EUT to Inquiry mode

Note: This setup was used for Peak Power, Bandedge Compliance, Restricted Band, and Frequency Range measurements.

5.1.2 Block Diagram



The solid lines are coaxial cables and the dashed lines are either EUT insertion to the test board or control cables between test setup devices.

5.2 Setup B (conducted measurements, hopping enabled)

5.2.1 Operational description

This setup was used in radiated spurious emission / harmonics measurements with hopping enabled. The EUT was inserted in a laptop PC equipped with software which can set the EUT into Inquiry mode.

This setup was used for Spurious Radiaated Emissions / Harmonics Plots

5.2.2 Block diagram

The solid lines are coaxial cables and the dashed lines indicate no wired connection (Radiated Measurement)

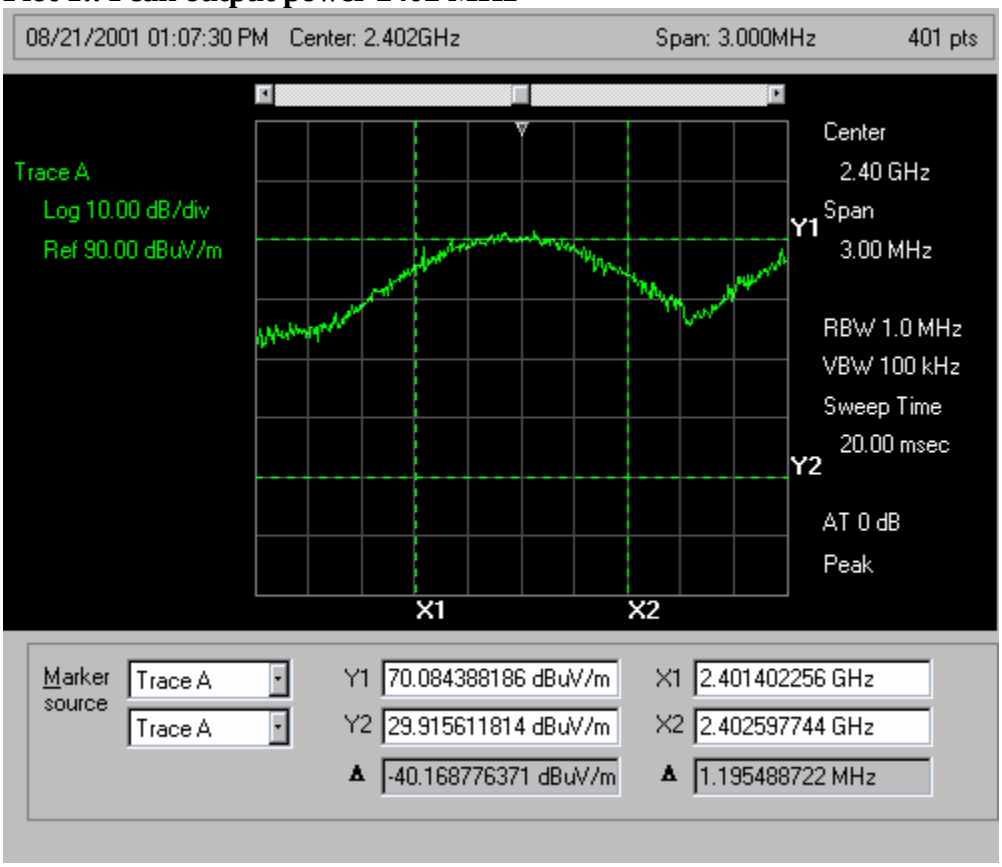
6 TEST RESULTS

The measurement reflects true field strength, with the correction factors accounted for in the dislayed result. The plot represents the maximized amplitude, having explored the worst case turntable angle, EUT position and antenna height.

6.1 Peak output power (§15.247b1)

6.1.1 Screen shots

Plot 1:. Peak output power 2402 MHz

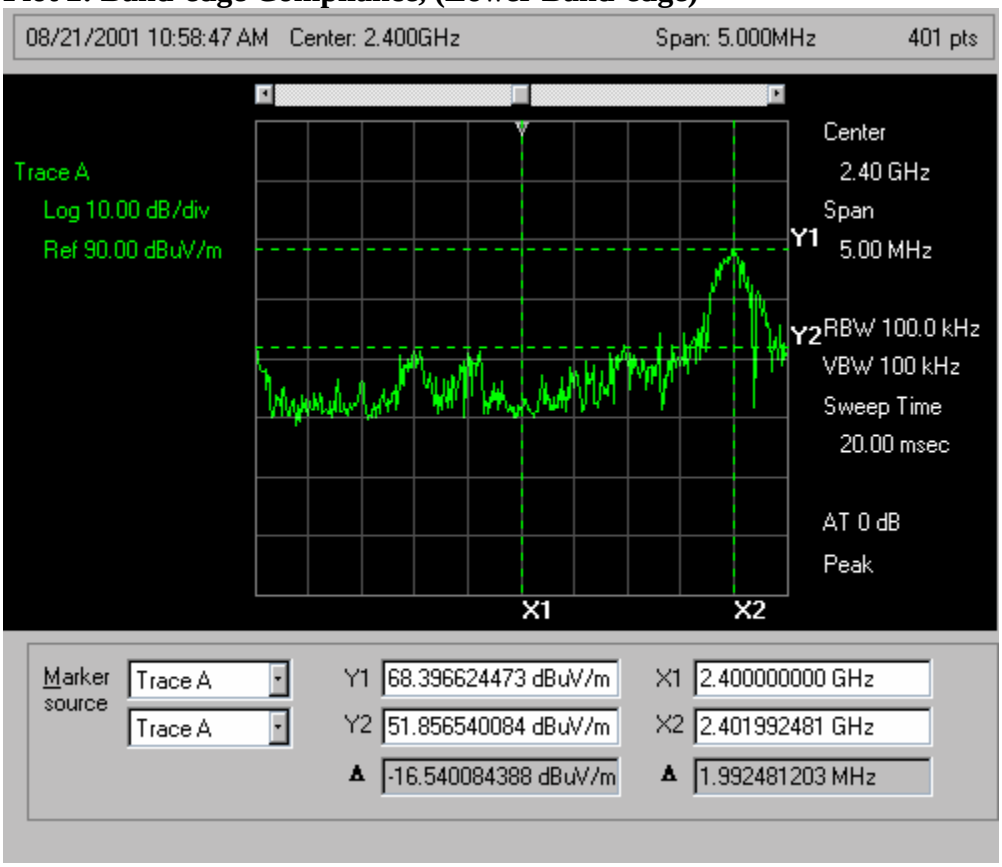


6.2 Band-edge compliance of RF Radiated emissions (§15.247c1)

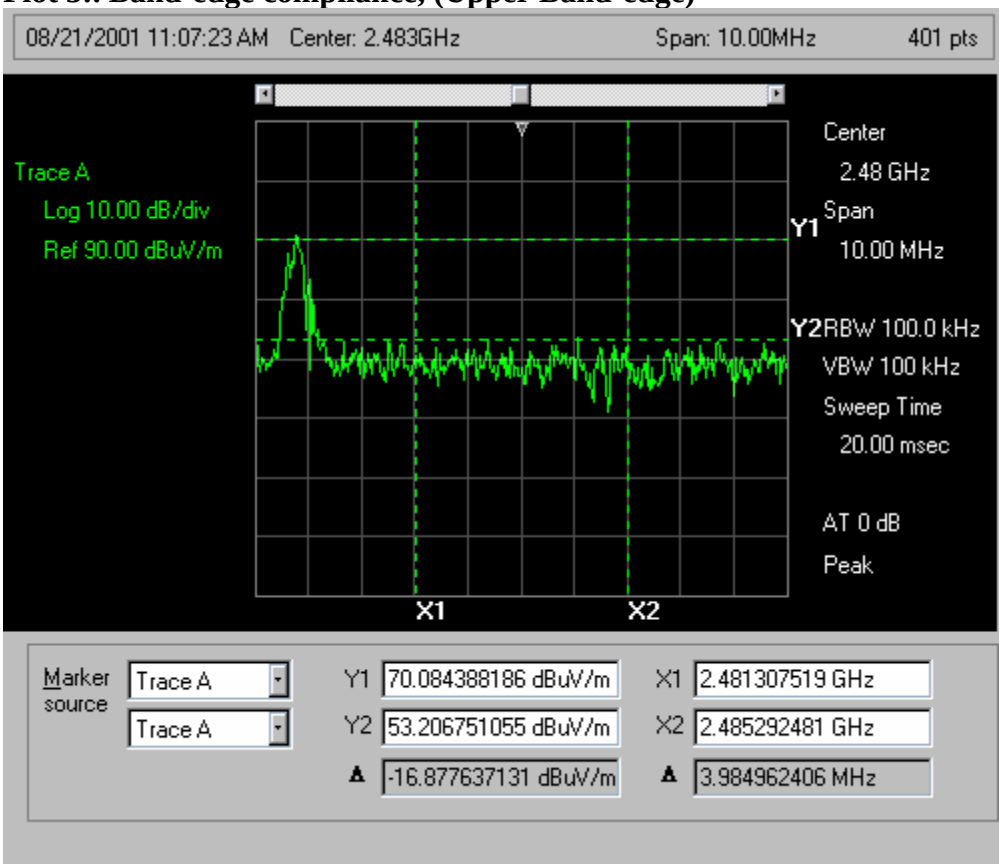
Bandedge compliance measurements were made at a test distance of 1 meter, the emission limit is 63.54 dBuV/meter.

6.2.1 Screen shot

Plot 2: Band-edge Compliance, (Lower Band-edge)



Plot 3:. Band-edge compliance, (Upper Band-edge)

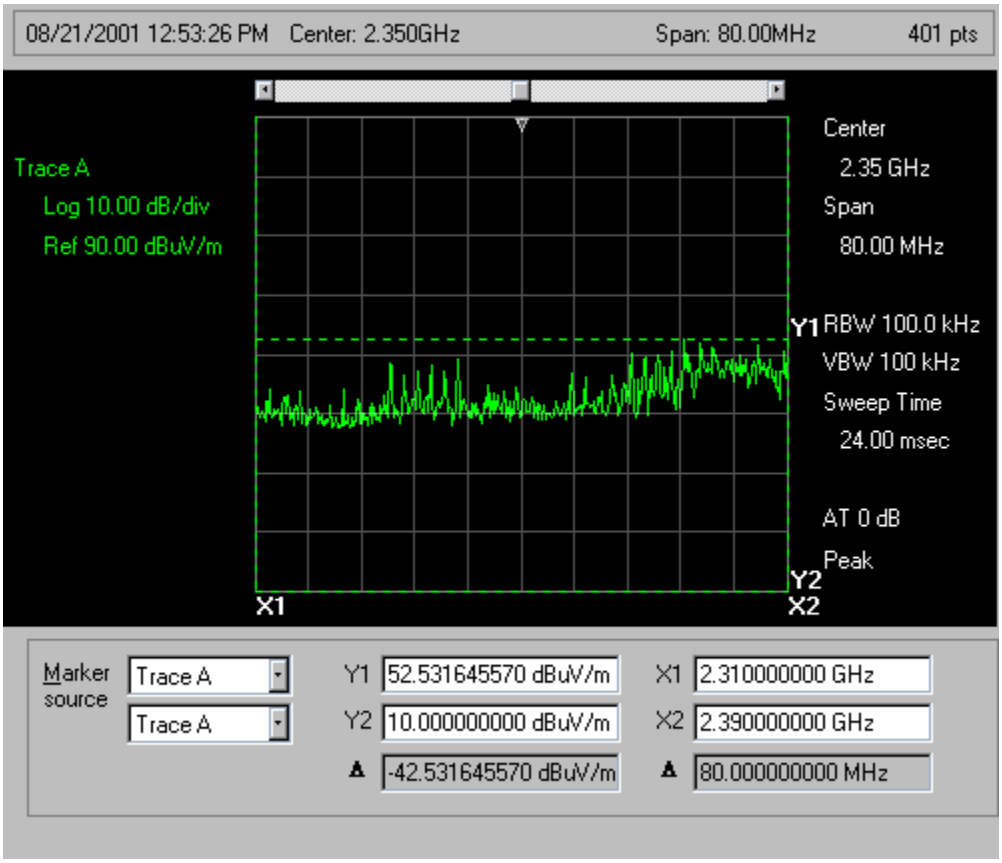


6.3 Restricted Band Radiated Emissions (§15.247c1)

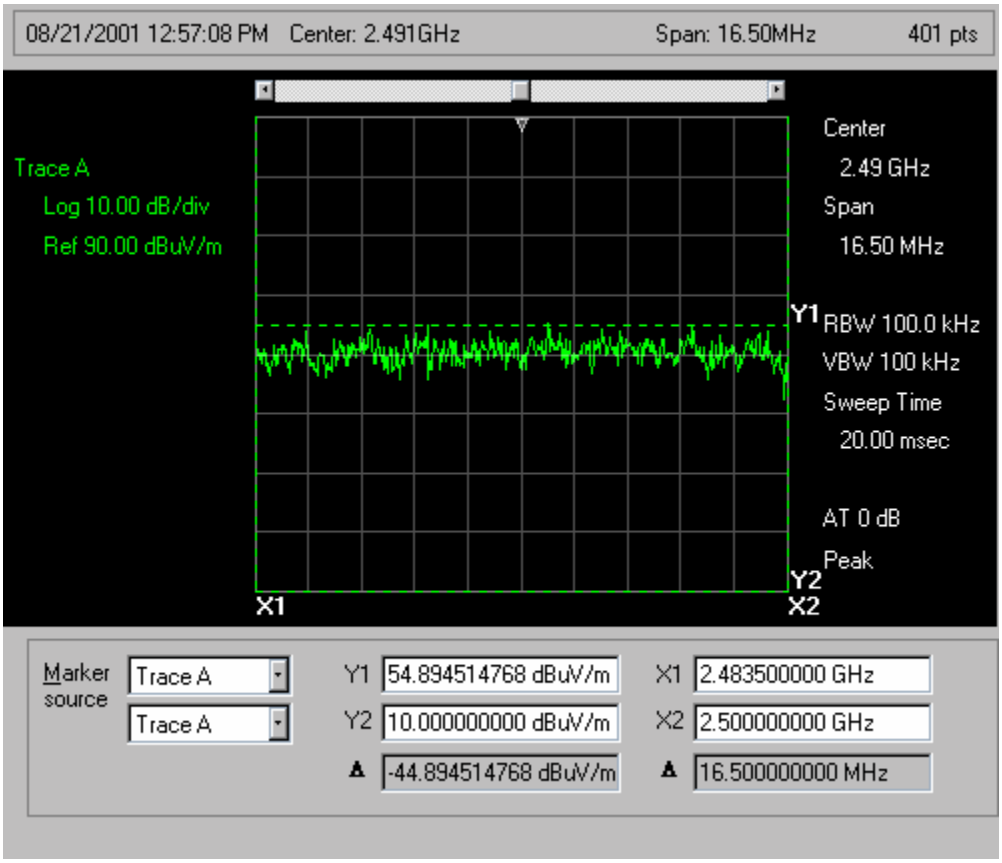
Restricted Band compliance measurements were made at a test distance of 1 meter, the emission limit is 63.54 dBuV/meter.

6.3. Screen Shots

Plot 4 Restricted Band 2310-2930 MHz



Plot 6 Restricted Band 2483.5-2500 MHz

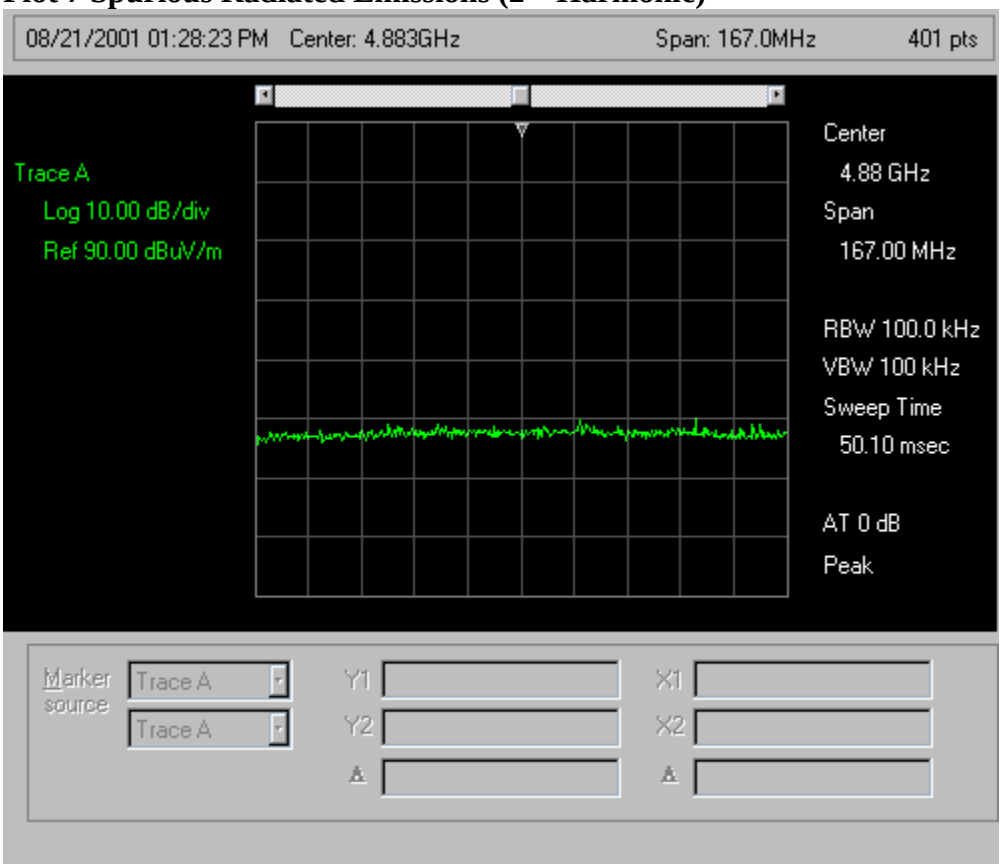


6.4 Spurious RF Radiated emissions (§15.247c1)

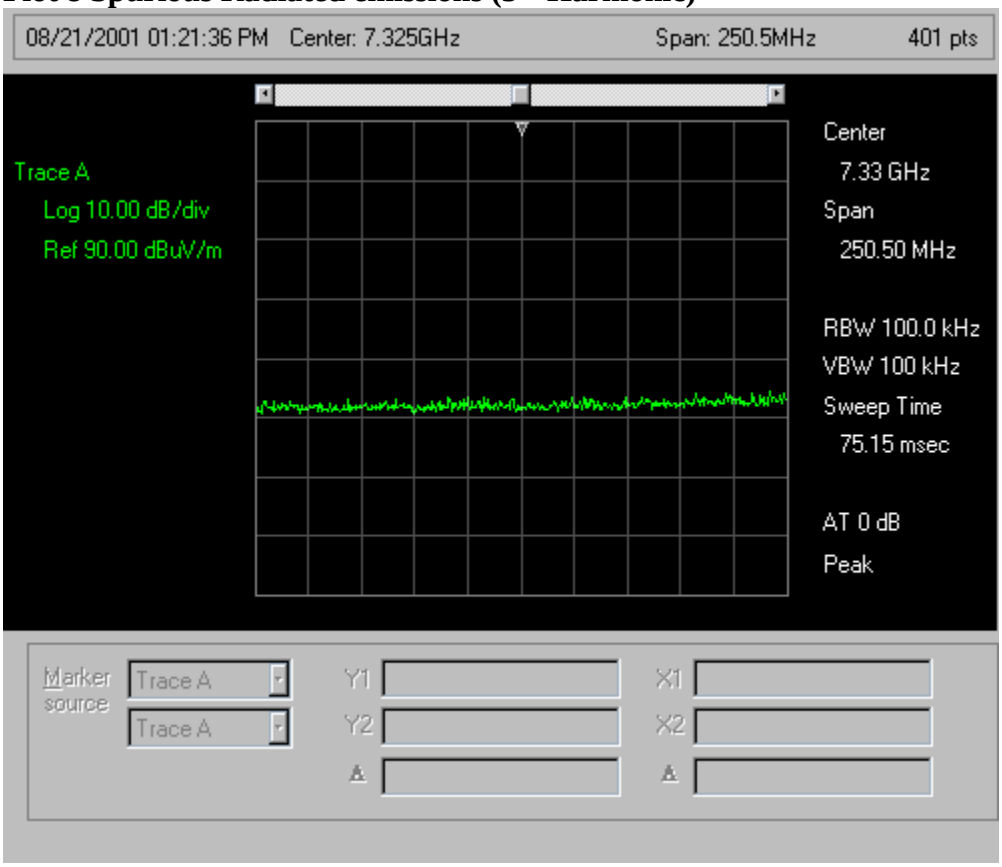
Spurious Radiated Emissions / Harmonics measurements were made at a test distance of 1 meter, the emission limit is 63.54 dBuV/meter.

6.4.1 Screen Shots

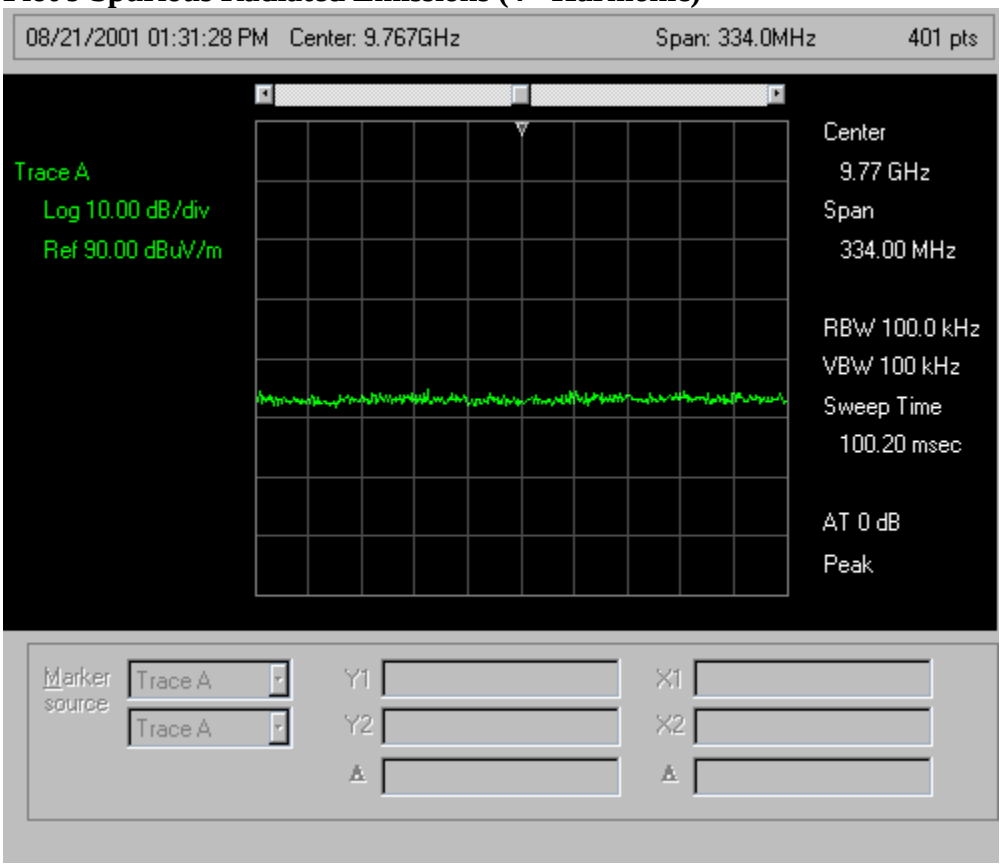
Plot 7 Spurious Radiated Emissions (2nd Harmonic)



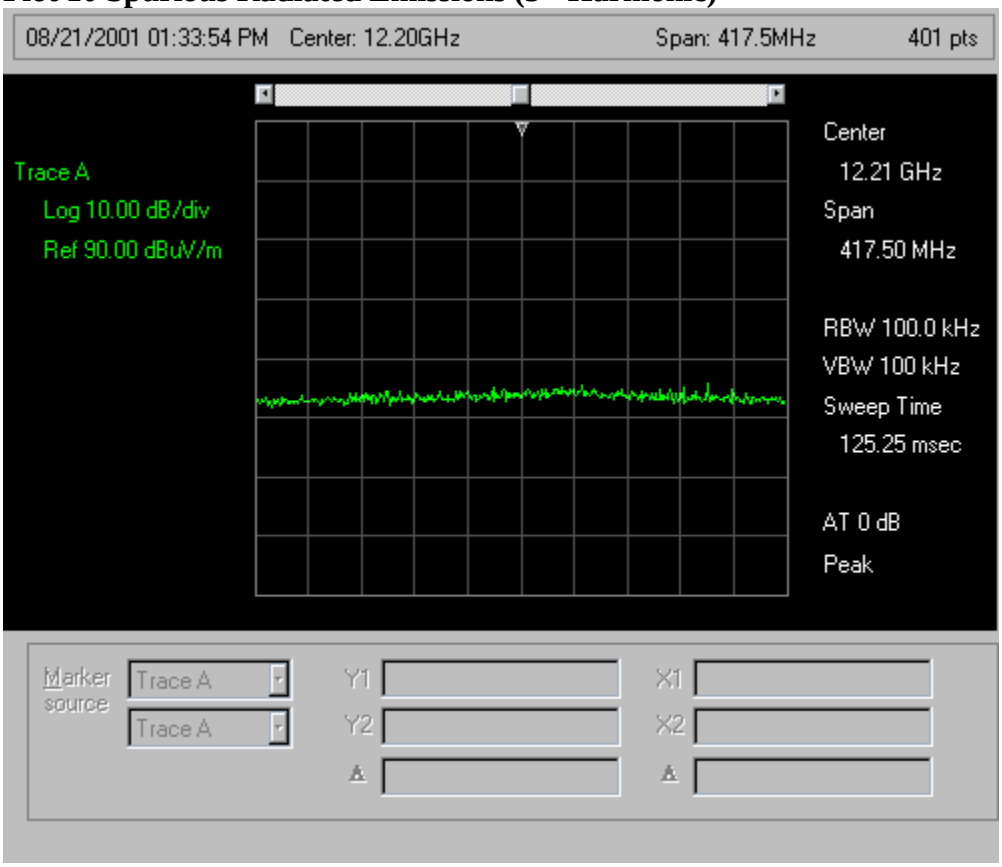
Plot 8 Spurious Radiated emissions (3rd Harmonic)



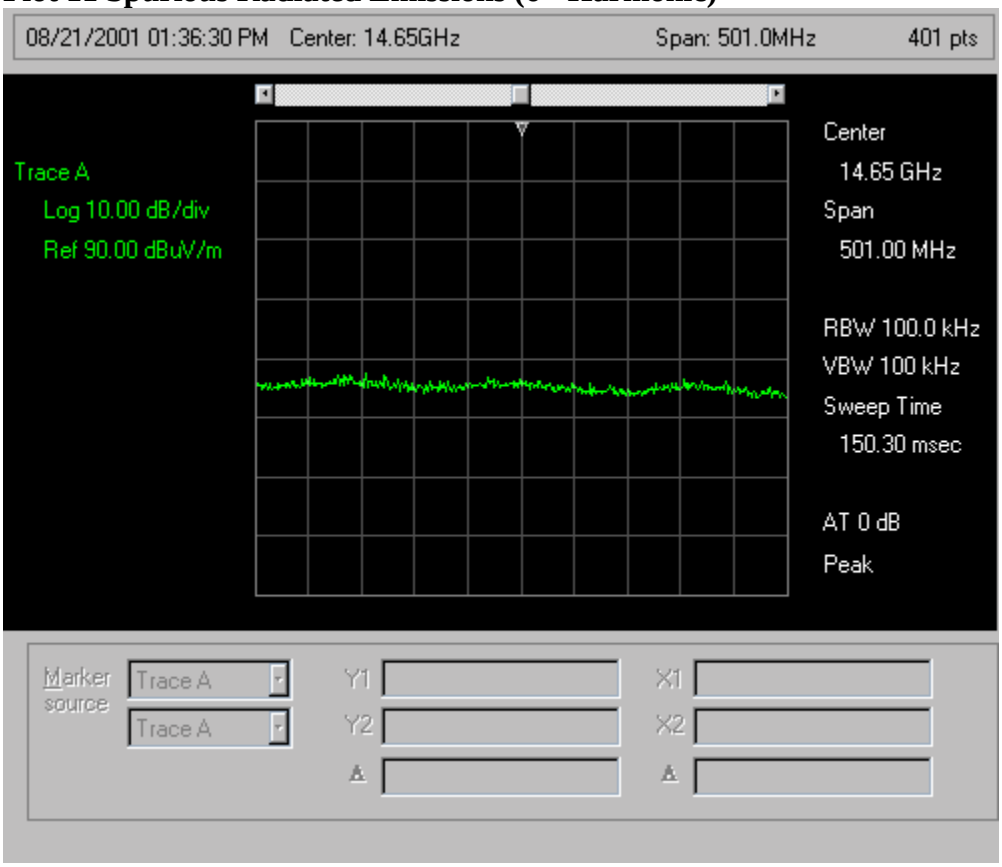
Plot 9 Spurious Radiated Emissions (4th Harmonic)



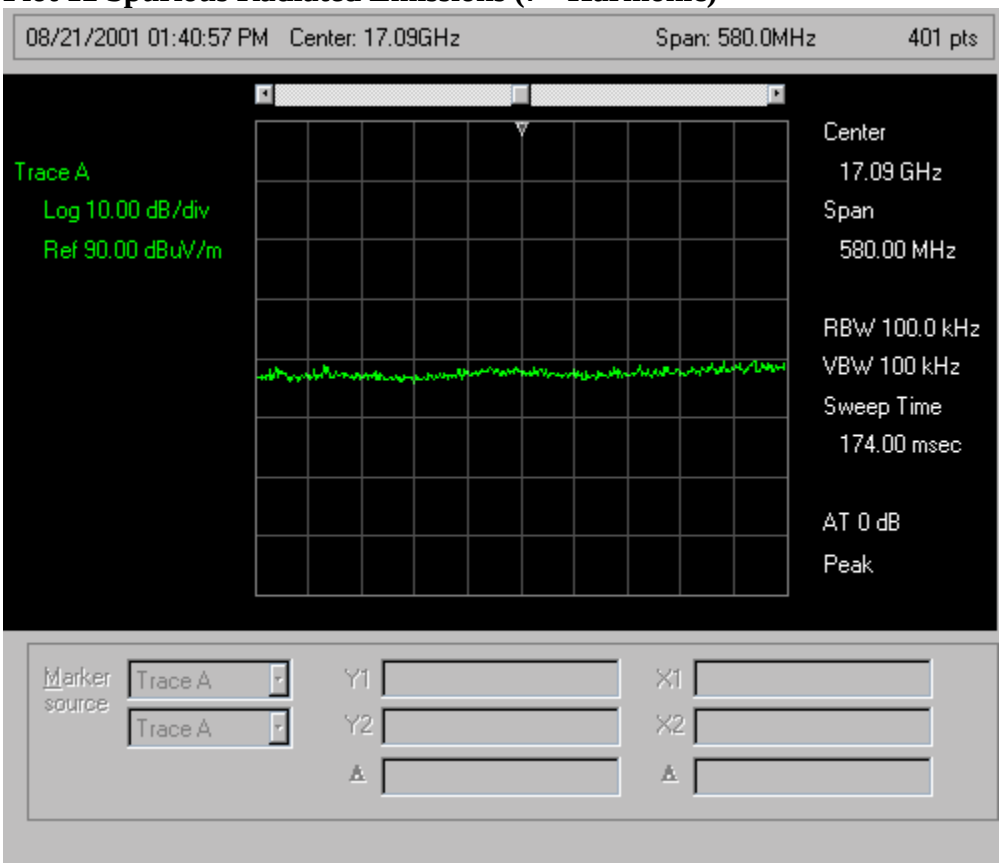
Plot 10 Spurious Radiated Emissions (5th Harmonic)



Plot 11 Spurious Radiated Emissions (6th Harmonic)



Plot 12 Spurious Radiated Emissions (7th Harmonic)



7 TEST EQUIPMENT

(Peak output power), 15.247, c (Band-edge compliance of RF radiated emissions), 15.247, c (Spurious RF radiated emissions)

Equipment	Type	Manufacturer	Device Number
EMI Analyzer System	84125B	Hewlett-Packard	15921-12
Pre-Amp	83051A	Hewlett-Packard	15921-12
Pre-Amp	83017A	Hewlett-Packard	15921-12
High Pass Filter	9701	CMT	15921-12
Horn Antenna	3115	EMCO	15921-12
Cable		Hewlett Packard	15921-12

Note: The HP 84125B EMC Analyzer System is calibrated as a system, including the analyzer, pre-amps, filters, and cable.